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|--|-------------|----------------------|---------------------|------------------|
| APPLICATION NO.                                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/579,547                                       | 05/16/2006  | Juergen Detering     | 290078US0PCT        | 3959             |
| 22850  | 7590        | 10/12/2007           | EXAMINER            |                  |
| OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. |             |                      | PEZZUTO, HELEN LEE  |                  |
| 1940 DUKE STREET                                 |             |                      | ART UNIT            | PAPER NUMBER     |
| ALEXANDRIA, VA 22314                             |             |                      | 1796                |                  |
|  |             |                      | NOTIFICATION DATE   | DELIVERY MODE    |
|  |             |                      | 10/12/2007          | ELECTRONIC       |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

## Office Action Summary

**Application No.**

10/579,547

**Applicant(s)**

DETERING ET AL.

**Examiner**

Helen L. Pezzuto

**Art Unit**

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/25/06</u> | 6) <input type="checkbox"/> Other: _____  |

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**DETAILED ACTION**

***Response to Amendment***

Applicant's amendment to claims 3-6 filed in the preliminary amendment on 5/16/06 is acknowledged. Currently, claims 1-6 are pending in this application.

***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 7/25/06 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrecht et al. (US-887) or Morschhauser et al. (US-476 or US-011 or US-507) or Tembou N'Zudie (US-459).

US 6,187,887 B1 to Albrecht et al. discloses a water-soluble polymer comprising at least four structural

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components a), b), c), and d). Specifically, prior art teaches 3-96 mol% of component a) such as AMPS defined within the scope of the instant anionic monomer (C), 0.05-75 mol% of component c) defined within the scope of the instant quaternized nitrogen-containing monomer (B), and 0.01-50 mol% of component d) defined within the scope of the instant polyalkylene oxide monomer (A) (col. 3, line 9 to col. 4, line 44; col. 5, lines 9-15). The resultant copolymer is taught to have a number average molecular weight of 50,000 to 5,000,000 (col. 5, lines 19-21).

US 6,645,476 B1 to Morschhauser et al. discloses a water-soluble polymer derived from 50.1 to 99.9 mol% of a macromonomer (A) defined within the scope of the instant polyalkylene oxide monomer (A), comonomers (B) such as AMPS and (meth)acrylic acid, MAPTAC, APTAC and DADMAC are defined within the scope of the instant anionic monomer (C) and quaternized nitrogen-containing monomer (B), respectively (col. 2, line 17 to col. 4, line 8; claims 1-5). Prior art discloses a number average molecular weight of 1,000 to 20,000,000 for the resultant copolymer (col. 4, lines 9-15).

US 6,891,011 B2 to Morschhauser et al. discloses a water-soluble copolymer comprising at least 0.1 wt% of AMPS

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(A), 0.1-99.8 wt% of comonomers (C) such as DADMAC and MAPTAC, and 0.1-99.8 wt% of macromonomer (F) defined within the scope of the instant polyalkylene oxide monomer (A) (col. 1, line 62 to col. 2, line 28; col. 3, lines 32-56; col. 6, line 45 to col. 8, line 34). The resultant copolymer is taught to have a molecular weight from  $10^3$  g/mol to  $10^9$  g/mol (col. 2, lines 29-32).

Similarly, US 7,081,507 B2 to Morschhauser et al. discloses a water-soluble copolymer comprising at least 0.1 wt% of AMPS (A), 0.1-99.8 wt% of comonomers (D) such as DADMAC and MAPTAC, and 0.1-99.8 wt% of macromonomer (C) defined within the scope of the instant polyalkylene oxide monomer (A) (col. 1, line 59 to col. 2, line 12; col. 3, line 27 to col. 5, line 30; working Examples). The resultant copolymer is taught to have a molecular weight from  $10^3$  g/mol to  $10^9$  g/mol (col. 2, lines 13-16).

US 2003/0220459 A1 to Tembou N'Zudie discloses a heat sensitive water-soluble copolymer comprising 10-69 molar parts of at least one monomers I and II, 0-50 molar parts of at least one monomer III and IV, 0-30 molar parts of at least one monomer V and VI, 0-30 molar parts of at least one monomer E, and from 30-75 molar parts of at least one ethylenically unsaturated sulfonic acid such as AMPS

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encompassing the instant (C ) monomer (see abstract; page 2, [0025] to page 3, [0073]; page 4, [0104]. Specifically, prior art monomers I, III, and IV embraces the instant monomer (A), and prior art E1 encompasses the instant monomer B (page 8, [0190]-[0199]; page 18, Example 28).

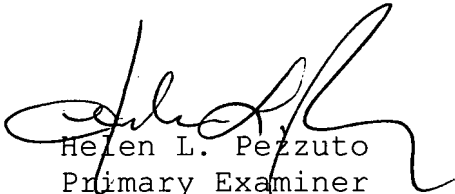
Prior art references discussed above disclose the recited (A), (B), and (C) recurring units as suitable comonomers in the formulation of water-soluble polymers. This makes their selection readily envisaged by one having ordinary skill in the art. Accordingly, it would have been obvious to one having ordinary skill in the art to formulate the claimed copolymer, motivated by the reasonable expectation of success. Once the motivation of selecting the suitable monomers and comonomer within the copolymer is provided within prior art general disclosures, the discovery of optimum or workable ranges of the respective components involves only routine skill in the art. Thus, rendering obvious the present claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen L. Pezzuto whose telephone number is (571) 272-1108. The examiner can normally be reached on 8 AM to 4 PM, Monday thru Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Helen L. Pezzuto  
Primary Examiner  
Art Unit 1713

hlp